

Financial Statements Demystified:

Learn to Better Understand Your Company's Income Statement and Balance Sheet

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It goes without saying that entrepreneurs are faced with many challenges in running a business. Besides product differentiation, market entry, strategic positioning, and marketing, to name a few, entrepreneurs must also be able to evaluate their firms' growth. Financial statements provide the information necessary to accomplish this task. This article will provide a brief overview of two important Financial Statements; the Income Statement and the Balance Sheet.

The Income Statement is divided into two sections: "Revenues," which is a measure of the resources generated from the sales of products or services, and "Expenses," which is a measure of the costs associated with the selling of those products or services. The accounting equation to remember is: **Net Income = Revenue - Expenses**

A firm's "cash-flow", commonly known as "EBITDA", is determined from the Income Statement. Cash Flow is the cash generated after having paid all expenses directly related to operations, and is therefore available to pay for non-operational expenses such as taxes, and principal and interest payments on debt. EBITDA stands for Earnings (the Net Income before taxes), Before Interest (the cost of debt), Taxes (paid to the government based on a company's profit), Depreciation (a non-cash expenditure for the valuation decline of a tangible asset), and Amortization (a non-cash expenditure for intangible assets such as patents or goodwill). Since it is derived from the Income Statement, one can visualize it best using a sample Income Statement such as the one below.

ABC, Co. Income Statement YE 12/31/07	
Revenues/ Sales	700,000
Expenses	
Cost of Goods Sold (COGS)	<u>200,000</u>
Gross Profit	500,000
Operating Expenses	
Wages	90,000
Rent	20,000
Selling Expenses	30,000
Depreciation	50,000
Amortization	<u>30,000</u>
	220,000
Operating profit	280,000
Interest Expense	20,000
Profit before taxes	260,000
Income tax expense	65,000
Net income	195,000

Based upon the information provided in the Income Statement, ABC, Co's cash flow is \$360,000. How did we arrive at that number? Starting with Net Income, we added back interest and taxes as well as "noncash" item expenses where no cash is actually disbursed, such as depreciation and amortization. This shows the true cash position of the company.

Values used in calculating Financial Ratios are generally derived from both the Income Statement and Balance Sheet. A Balance Sheet is a snapshot of the company's assets and liabilities at a given moment in time. A sample Balance Sheet for ABC Co. is shown below. It is divided into Assets and Liabilities. Assets are further broken down into Current Assets, Property Plant and Equipment and Other Assets. Liabilities are divided into Current Liabilities, Long Term Liabilities and Shareholders' Equity.

ABC, CO. BALANCE SHEET			
Assets		Liabilities and shareholders' equity	
Current Assets		Current liabilities	
Cash	\$800,000	Accounts payable	\$50,000
Accounts receivable	\$100,000	Wages	\$90,000
Less: Uncollectibles	(\$20,000)	Short-term debt	\$300,000
Inventory	\$500,000	Total current liabilities	\$440,000
Total current assets	\$1,380,000	Long term liabilities	
Property, plant and equipment		Bank loans	\$450,000
Property	\$50,000	Mortgages	\$600,000
Buildings	\$350,000	Total long term liabilities	\$1,050,000
Less: Accum. Depreciation	(\$100,000)	Shareholders' equity	
Total property, plant, and equipment	\$300,000	Contributed capital	\$300,000
Other asset		Retained earnings	\$290,000
Patents	\$400,000	Total shareholders' equity	\$590,000
Total other assets	\$400,000	Total liab. and shareholders' equity	\$2,080,000
Total assets	\$2,080,000		

Financial Ratios are expressed as a decimal value, such as 0.10, or the equivalent percent value, such as 10%. They are a critical part of financial statement analysis. The ratios of firms in different industries, which face different risks, capital requirements, and competition are not generally comparable. However, one should measure their firm's growth against key ratios published for their industry. The following are some of the commonly used Financial Ratios.

Profitability Ratios measure the firm's ability to use its assets and control its expenses to generate an acceptable rate of return.

1. Gross margin = $(\text{Revenue} - \text{COGS}) \div \text{Revenues}$ [Measures gross profit margin achieved on revenues. Benchmark: The minimum GM without looking at information about the company should be at least 35% to 38%.]
2. Net Operating Income = $\text{Sales} - \text{Expenses (Cost of Goods Sold plus Operating Expenses)} \div \text{Sales}$ [Measures income generated from operations.]
3. Net profit margin = $\text{Net profit} \div \text{Sales}$ [Measures net profit margin achieved on sales]
4. Return on equity = $\text{Net income} \div \text{shareholders' equity}$ [The return on invested capital]

Operating Ratios measure how quickly a firm converts non-cash assets to cash assets.

1. Days Payable = $\text{Accounts Payable} \div (\text{COGS} \div 365)$ [How fast the firm pays its bills. It is generally better to take longer to pay bills so long as it does not adversely affect business relationships with providers]
2. Collection ratio (days receivable) = $\text{Accounts Receivable} \div (\text{revenues} \div 365)$ [How quickly the company's bills are paid. The quicker the better]
3. Days inventory carried = $\text{Inventory} \div (\text{COGS} \div 365)$ [The average daily inventory carried]

Liquidity Ratios measure the availability of cash to pay short term debt.

1. Current ratio = $\text{current assets} \div \text{current liabilities}$ [Indicates whether current bills can be paid. Generally, this ratio should be a minimum of 2 to 1]
2. Quick ratio = $\text{Current assets} - \text{inventory and other non-liquid current assets} \div \text{current liabilities}$ [Measures liquidity by indicating whether current bills can be paid without selling inventory or non-liquid assets. This ratio should generally be a minimum of 1 to 1]

Now it is time for a "pop quiz". Determine the following Financial Ratios for ABC Co. and give your

opinion as to how well the company is doing.

Financial Ratios to ABC. Co.	
Ratio	Value: Explanation
a Gross Margin	_____
b Net Operating Inc	_____
c Net Profit Margin	_____
d Return on Equity	_____
e Days Payable	_____
f Collection ratio	_____
g Days earned inv.	_____
h Current ratio	_____
i Quick ratio	_____
* Answers provided below	

Note that it is not sufficient to look at only one year of data. It is important to perform annual or semi-annual comparisons to determine growth trends and measure growth rate. For instance, it is a sign of trouble if revenues continue to increase yet gross margins decrease over the same time period. Also, if Net Income declines from 25% to 24% and then 19%, the trend is negative even though the individual percentages by themselves may look good. And consider that a goal might be to legitimately minimize Net Operating Income in order to minimize taxes. Thus Net Income does not carry the same weight as the company's cash flow (EBITDA). Future projections of three to five years of the ratios are also important to see where the company is potentially headed and to highlight areas to work on. Beyond that, the entrepreneur should examine other factors to determine how the company might perform over time. For example,

What are the opportunities for the company's products or services?

What effect does the general economy have?

Does the firm have a compelling business plan?

What is the strength and experience of each of individual the management team members?

Are their skill sets complimentary?

How committed is the team to the company's success?

Armed with the firm's financial information and answers to these and other questions, one can better chart a course for growth, which is the entrepreneur's goal.

Answers to Financial Ratios: a) 71.4% of every dollar goes to gross profit b) 40% goes to operating exp. and COGS c) 27.85% goes to the bottom line d) 33% return on capital invested in the firm e) 91 days to pay bills f) 52 days to collect receivables g) 912 days in inventory – very high h) 3.1 ABC can meet short term financing i) $(\$1,380M - \$500K) \div \$440K = 2.0$ ABC can pay its debt.

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